

November 7, 2005

Ms. Kim Heroy-Rogalski,
California Air Resources Board
P.O. Box 2815
Sacramento, CA, 95812-28152

Dear Ms. Heroy-Rogalski,

On behalf of the California Ski Industry Association, I would like to provide our preliminary comments on the Air Resources Board's (ARB's) proposed Airborne Toxic Control Measure (ATCM) to control diesel particulate matter (PM) emissions from Off-Road Diesel Engines (Proposed Rule). The California Ski Industry Association (CSIA) represents 25 ski resorts operating in California, and has supported ARB's efforts to reduce diesel particulate emissions from stationary and portable engines. However, conceptually, the new Proposed Rule is a marked departure from prior reduction schemes applied to portable diesel engines. This rule provided a single gram/brake horsepower hour interim and final target, and allowed fleet operators to comply either through the use of new, cleaner engines, use of alternate fuels, or installation of retrofit diesel particulate filters or catalysts. Under the Proposed Rule, ARB would mandate the use of diesel particulate filters representing Best Available Control Technology (BACT) for five separate engine groups. Simply put, we believe this new proposed compliance approach will not be technologically feasible or cost effective for the ski industry members.

Background

We appreciate that ARB recognizes that diesel engines are essential for the safe and reliable operation of off-road fleet operators, including our members. Our members' ski resorts are located in remote alpine areas within the state, and rely on off-road diesel equipment to maintain the ski slopes, provide emergency response, and allow safe access to the resorts. Given the steep grades, cold temperatures, and duty cycles, our resorts rely solely on diesel engines to power snow grooming and snow plow equipment, as the utilization of alternate fueled vehicles for the entire fleet is not a feasible option. Earlier this year, the CSIA provided to ARB a detailed inventory of this off-road diesel equipment, together with a summary of how these fleets are managed by our members. The majority of the off-road fleet diesel-powered fleet is composed of snowcats (some 175 units, representing approximately 60% of our off-road inventory) that are manufactured by Camoplast (formerly Bombardier) and Kassbohrer. These vehicles are used to maintain ski slopes, provide emergency response and evacuation for skiers and resort staff, and are often the only reliable means of access to remote areas within resorts.

Simply put: snowcats are the workhorses of our industry. They are essential to provide a safe and enjoyable skiing experience. In addition, our members use un-licensed on-road diesel equipment and off-road equipment for snow removal and other maintenance activities within the resorts.

Currently, diesel particulate matter (DPF) appears to be the main technology under ARB's approach to achieve Level 2 or 3 Verified Diesel Emission Control Systems (VDECS). From our understanding of the ABR VDECS verification process, it appears that all the certifications issued to off-road diesel engines and DPF systems are warranted to 5,000 feet, and do not extend to the altitudes that we operate in (up to 11,000 feet). Furthermore, most of our off-road diesel equipment, especially the snowcats, operate in temperatures well below the optimal working temperature range recommended for these DPFs. Therefore, absent data generated through a demonstration program, we cannot rely on retrofit DPF technology to achieve compliance with ARB's targets based on the technology driven approach in the proposed rule. Put another way: our members would face severe economic hardship if retrofits based on control technologies that have not yet been proven feasible *for their unique operating conditions* be mandated as a compliance approach. Therefore, we urge ARB to consider revising or modifying the proposed rule based on the recommendations outlined below.

As we have discussed previously, several of our members have been in the forefront in controlling emissions from stationary diesel engines. One of our members installed diesel particulate filters (DPFs) and selective catalytic reduction (SCR) control technology on diesel power plants to reduce particulate and nitrogen oxide emissions. Our members have also reduced particulate emissions from off-road diesel through voluntary bio-diesel demonstration programs and the purchase of new, cleaner units. As you may know, the CSIA was one of the first trade associations to support AB 1058 in 2002. In this larger context of environmental stewardship, many of our members participate in industry-wide programs such as the 'sustainable slopes' initiative, aimed at highlighting global warming issues. As part of this initiative, participants utilize bio-diesel in part of their fleet, make significant reductions in the consumption of non-renewable energy, develop and support sources of renewable energy and offer more 'green' options to their customers.

The CSIA was also one of the first trade associations to support ARB's stationary and portable diesel engine Air Toxic Control Measures. Thus, while we are committed to reducing harmful emissions into the atmosphere, our practical operating experience with diesel engines and control systems has given us an understanding of what can and, more importantly, what cannot be done to control diesel particulate from diesel engines operating at high altitudes.

Comments on Proposed Rule

We believe that the following four modifications are necessary to address what we view as fundamental flaws in ARB's Proposed Rule:

- **Fleet-wide compliance based on a single gram/brake horsepower-hour (g/bhp-hr), as was done with the Portable Engine ATCM and Large Spark Ignition Rule (LSI);**

Implementing a fleet-wide average compliance approach will provide the ski industry operators essential flexibility to determine the best method to achieve ARB's emission reduction target. Under the current design of the Proposed Rule, ski operators must install retrofit particulate controls on all existing off-road equipment, which is to be phased in with older equipment first, followed by newer equipment. There are multiple problems with this approach. First: our ski industry members may not be able to use Verified Diesel Emission Control Systems (VDECS), as the performance of these units is only tested up to altitudes of 5,000 feet. As discussed above, our members' operations are in cold, remote alpine areas, and require use of off-road diesel equipment up to 11,000 feet. Therefore, absent additional testing and performance evaluations, we cannot rely on this retrofit control technology to comply with the Proposed Rule. Second, this approach is both wasteful and expensive, as it will mandate controls on older equipment, which may be turned over within one or two years. We believe that a g/bhp-hr fleet-wide compliance standard is essential to ensure safe and reliable operation of our off-road fleet. Under this single target, operators would be given the option of either installing VDECS, or purchasing or leasing a new, cleaner unit. Third, requiring retrofits for newly purchased equipments is inefficient, as it transfers the design and operability issues from the engine manufacturer – who has substantial technical expertise – to the end user – who generally have little expertise in the design and application of retrofit technology to these new, complex Tier 1, 2 and Tier 3 engines. Should ARB wish to reduce emissions from these new Tier 2 and 3 engines, we strongly recommend that ARB revise the particulate emission standards associated with the Tier 2 and 3 units, and require manufacturers to meet these new, lower limits.

- **Provide a compliance option for accelerated turnover of the off-road fleet, as was done with the Portable Engine ATCM;**

Rather than compel operators to retrofit existing off-road diesel equipment with aftermarket particulate controls, operators should be given the option to purchase new units. This option presents a practical and efficient compliance alternative for our members as the primary off road diesel equipment used in ski industry operations - snowcats - are usually turned over within 5 to 10 years. Rather than require ski resorts to install retrofit controls, which may only be used for 1 or 2 year, we believe that compliance targets should allow credits for our members who commit to an accelerated fleet turnover option. Under this option, operators would commit to leasing or purchasing new, clean Tier 4 engines once they become available, and commit to turning over the fleet within 4 years (i.e., by 2015). We note that ARB provided this option as part of the Portable Diesel ATCM. This option would secure additional nitrogen oxide (NOx) and hydrocarbon reductions, avoid the warranty issues associated with installation of VDECS on new Tier 2 and 3 engines, and eliminate the waste and expense of installing VDECS on older units that will be turned over within short order.

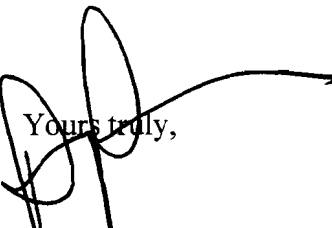
- **Provide exemptions for emergency use of off-road equipment;**

Exemptions should include equipments that are employed in emergency/safety response. Furthermore, we believe that these equipments should be exempt from the proposed idling policy (e.g. 'policy to reduce unnecessary idling') regulations.

- **Provide exemptions for low-use equipment**

Exemptions should be crafted for equipments utilized less a certain number of hours per year. We understand that ARB is developing a low use exemption provision to be included in the Proposed Rule.

It is certainly our intention to be proactive in this matter and we look forward to continual participation with your staff to craft a practical and effective Off-road Diesel ATCM that will meet both ARB's and CSIA's objectives. We also wish to extend our thanks to your staff for working with us so far, and look forward to developing a balanced approach to reducing particulate emissions from off-road diesel engines.


Yours truly,
Bob Roberts
President

cc: CSIA Members.